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## NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

03/09/2010

Steve M. Mills  
MILLS & ONELLO LLP  
Suite 605  
Eleven Beacon Street  
Boston, MA 02108

EXAMINER

MAIS, MARK A

ART UNIT

PAPER NUMBER

2467

DATE MAILED: 03/09/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,324

10/21/2003

Ji Young Lee

SAM-0442

4534

TITLE OF INVENTION: SYSTEM AND METHOD FOR ALLOCATING A PLURALITY OF SOURCES TO A PLURALITY OF CHANNELS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/09/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
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or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590

03/09/2010

Steve M. Mills  
MILLS & ONELLO LLP  
Suite 605  
Eleven Beacon Street  
Boston, MA 02108

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/09/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
MAIS, MARK A	2467	370-428000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1154 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1154 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/690,324	LEE, JI YOUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	MARK A. MAIS	2467	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment dated 25 January 2010.
2. ☒ The allowed claim(s) is/are 1-4 and 6-72 [renumbered 1-71].
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date <u>1/25/2010</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---|--|

/MARK A. MAIS/  
Examiner, Art Unit 2467

/Pankaj Kumar/  
Supervisory Patent Examiner, Art Unit 2467

### **EXAMINER'S AMENDMENT**

1. During a telephone conversation conducted on March 3, 2010, Leah Dewar authorized the following examiner's amendment. This Examiner's Amendment, which places this application in condition for allowance, requires no extension of time under MPEP 706.07(f)(F) because Applicants' Amendment after Final was filed on January 25, 2010—within two months of the Final Rejection mailed on November 24, 2009.
2. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

### ***Information Disclosure Statement***

3. The information disclosure statement filed on January 25, 2010 does not fully comply with the requirements of 37 CFR 1.98(a)(3) because: (a) it does not include a concise explanation of relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information [under 37 CFR 1.98 (a)(3)(i)] or (b) a copy of the English-language translation, or portion thereof, of the Japanese Patent Office's Office Action dated December 1, 2009 for the corresponding Japanese Application number 2004-009706 [under 37 CFR 1.98 (a)(3)(ii)]. It has been placed in the application file, but the non-complying information referred to therein has not been considered. Since the submission appears to be *bona fide*, applicant is given

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**ONE (1) MONTH** from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 CFR 1.136(a) OR (b). Failure to timely comply with this notice will result in the above mentioned information disclosure statement being placed in the application file with the noncomplying information **not** being considered. See 37 CFR 1.97(i).

### *Claims*

4. Please amend the following claims:

Claim 1. (Currently Amended) A system for transferring a signal to a channel, comprising:

a storage unit dedicated to the channel for storing source identification information of a plurality of predetermined sources, the source identification information indicating an order of priority of the plurality of predetermined sources for access to the channel;

a plurality of selection circuits for receiving input signals from at least one of the plurality of predetermined sources and the source identification information of the plurality of predetermined sources from the storage unit, each of the selection circuits receives source identification information for one of the plurality of predetermined sources and each of the selection circuits selects ~~selecting~~ one of the plurality of input signals in response to the source identification information for the one of the plurality of

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predetermined sources wherein the plurality of selection circuits receive the source identification information for the plurality of predetermined sources in order of priority such that a first selection circuit of the plurality of selection circuits receives source identification information for a highest-priority source; and

a circuit for checking outputs of the selection circuits and forwarding selected input signals to the channel,

wherein the storage unit stores the source identification information in a long bit sequence in an order of priority and stores the source identification information for the a highest-priority source in the most significant bits of the storage unit.

Claim 23. (Currently Amended) A system for transferring signals to channels, comprising; :

a plurality of storage units, each storage unit being dedicated to one of the channels, and each storage unit being adapted to store source identification information indicating an order of priority of a plurality of predetermined sources for access to the channel;

for each of the plurality of channels, a plurality of selection circuits for receiving input signals from at least one of the plurality of predetermined sources and the source identification information of the plurality of predetermined sources from the plurality of storage units, each of the selection circuits receives source identification information for one of the plurality of predetermined sources and each of the selection circuits selects ~~selecting~~ one of the plurality of input signals in response to the source identification information for the one of the plurality of predetermined sources, wherein the plurality of

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selection circuits receive the source identification information for the plurality of predetermined sources in order of priority such that a first selection circuit of the plurality of selection circuits receives source identification information for a highest-priority source: and

for each of the plurality of channels, a circuit for checking outputs of the selection circuits and forwarding selected input signals to the channel,

wherein each storage unit stores the source identification information in a long bit sequence in an order of priority and stores the source identification information for the a highest-priority source in the most significant bits of the storage unit.

Claim 37. (Currently Amended) A direct memory access (DMA) controller for controlling transfer of signals from predetermined input sources to output devices, a plurality of channels being connected to the output devices, the DMA controller comprising:

a plurality of storage units, each storage unit being dedicated to one of the channels, and each storage unit being adapted to store source identification information indicating an order of priority of the predetermined sources for access to the channel;

for each of the plurality of channels, a plurality of selection circuits for receiving input signals from at least one of the predetermined sources and the source identification information of the predetermined sources from the plurality of storage units, each of the selection circuits receives source identification information for one of the plurality of predetermined sources and each of the selection circuits selects ~~selecting~~ one of the plurality of input in response to the source identification information for the one of the



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plurality of predetermined sources, wherein the plurality of selection circuits receive the source identification information for the plurality of predetermined sources in order of priority such that a first selection circuit of the plurality of selection circuits receives source identification information for a highest-priority source; and

for each of the plurality of channels, a circuit for checking outputs of the selection circuits and forwarding selected input signals to the channel,

wherein each storage unit stores the source identification information in a long bit sequence in an order of priority and stores the source identification information for the a highest-priority source in the most significant bits of the storage unit.

Claim 51. (Currently Amended) A method for transferring signal to a channel, comprising:

storing source identification information for a plurality of predetermined sources in a storage unit, the source identification information indicating an order of priority of the plurality of predetermined sources for access to the channel;

providing a plurality of selection circuits for receiving input signals from at least one of the plurality of predetermined sources and the source identification information of the plurality of predetermined sources, each of the selection circuits receiving source identification information for one of the plurality of predetermined sources and each of the selection circuits selecting one of the plurality of input signals in response to the source identification information for the one of the plurality of predetermined sources, wherein the plurality of selection circuits receive the source identification information for the plurality of predetermined sources in order of priority such that a first selection circuit

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of the plurality of selection circuits receives source identification information for a highest-priority source;

with a checking circuit, checking outputs of the selection circuits and forwarding a selected input signal to the channel,

wherein the storage unit stores the source identification information in a long bit sequence in an order of priority and stores the source identification information for the a highest-priority source in the most significant bits of the storage unit.

***Allowable Subject Matter***

5. Claims 1-4 and 6-72 [renumbered 1-71] are allowed.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK A. MAIS whose telephone number is (571)272-3138. The examiner can normally be reached on 5am-4pm.

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7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 3, 2010

/MARK A. MAIS/  
Examiner, Art Unit 2467

/Pankaj Kumar/  
Supervisory Patent Examiner, Art Unit 2467